

## **REMARKS**

Claims 1-6 remain pending in the application. Claims 1-2 have been amended without introduction of new matter. Favorable reconsideration is respectfully requested in view of the above amendments and the following remarks.

Claims 1 and 3 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent Number 4,785,394 ("Fischer"). This rejection is respectfully traversed.

Fischer, in the background section, highlights the unacceptable delays that can occur in multiprocessor systems while a memory read access takes place (col. 1, lines 28-49). Fischer then describes an architecture in which split transaction buses communicate a read address signal from an initiator (e.g. a processor) to a responder (e.g. a memory) in a separate transaction from one in which the addressed memory returns the read data from the memory to the initiator (col. 1, lines 50-62). An arbitration technique is indicated as being necessary in each split transaction bus to avoid confusion resulting from conflicting communications between the various components of the computer system (col. 2, lines 63-66).

Fischer describes an arbitration technique used in a synchronous split bus transaction. In addition to assigning priorities to modules connected to the bus, the arbitration technique of Fischer also employs discrimination between initiator modules and responder modules with priority being given to responders over initiators (col. 3, lines 16-30).

In Fischer, arbitration is executed in a distributed manner (col. 21, lines 53-61 and Fig. 2). Each initiator bus coupler 64 includes its own arbiter circuit 160 and each responder bus coupler 66 includes its own arbiter circuit 162. Arbiter circuits 160 and 162 are distributed over initiator bus coupler 64 and responder bus coupler 66 and operate independently.

In contrast, the arbitration of Applicant's invention is centralized (see Specification, pages 20-23 and Figures 20-24). A single arbitration unit 31 includes an initiation arbiter 32

and a retirement arbiter 33, both arbiters being connected to all the modules via a bus architecture. The bus architecture may be a split-transaction bus architecture, having a write bus and a transaction bus for write operations and a read bus for read operations.

In comparison to Fischer, which requires an initiation arbiter and a respond arbiter for each and every module connected to the bus, the present invention requires only one, centralized arbitration unit containing a single initiation arbiter and a single respond/retire arbiter. Claim 1 has been amended to highlight this distinction. This feature is clearly absent from Fischer as described above. Therefore, Fischer fails to anticipate amended claim 1.

For at least the foregoing reasons, it is therefore respectfully submitted that Fischer does not disclose or suggest the variously claimed embodiments defined by claim 1, or by claim 3 which depends from claim 1. Accordingly, it is respectfully requested that the rejection of claims 1 and 3 under 35 U.S.C. §102(b) be withdrawn.

Claim 2 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Fischer in view of U.S. Patent Number 5,060,145 ("Scheuneman"). Claim 4 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Fischer in view of U.S. Patent Number 5,838,603 ("Mori"). Claim 5 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Fischer in view of U.S. Patent Number 5,046,023 ("Katsura"). Claim 6 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Fischer in view of U.S. Patent Number 5,016,876 ("Loffredo").

In view of the above submissions regarding novelty of claim 1, it is believed that the rejection of claims 2 and 4-6 for being obvious relative to Fischer and to each of Scheuneman, Mori, Katsura and Loffredo respectively, are moot and that no further arguments need be presented. It is therefore respectfully requested that the rejections of claims 2 and 4-6 under 35 U.S.C. §103(a) be withdrawn.

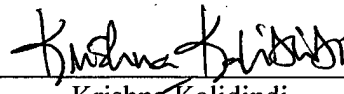
Furthermore, it would not have been obvious to one of ordinary skill to convert Fischer from distributed arbitration to centralized arbitration. Fischer is not concerned with centralized arbitration and actually refers to distributed arbitration as a means of avoiding the problems of centralized arbitration (col. 2, lines 35+ and more specifically, at line 46 as well as col. 21, lines 53-68).

The application is believed to be in condition for allowance. Prompt notice of same is respectfully requested.

Respectfully submitted,  
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